



# WHITE-RODGERS AUTOMATIC CONTROLS

## — INSTRUCTIONS — TYPE 1D51 and 1F51 Low Voltage COOLING ASTRO\*STATS with Sub-Base for System and Fan Selection

These low voltage thermostats are designed for operation of the cooling system. A selector switch provides convenient selection of cooling system and blower operation. These thermostats are equipped with a fixed type cooling anticipator

to provide for narrow differential control of room temperature. Models are available with either sealed mercury contacts, or with snap-action contacts.

### SELECTING THERMOSTAT LOCATION

The proper location of the room thermostat is most important to insure that it will provide a comfortable home temperature. Observe the following general rules when selecting a location:

1. Locate it about 5 ft. above the floor.
2. Install it on a partitioning wall, not on an outside wall.
3. Never expose it to direct light from lamps, sun, fireplaces, etc.
4. Avoid locations close to doors that lead outside, windows, or adjoining outside walls.
5. Avoid locations close to radiators, warm air registers, or in the direct path of heat from them.
6. Make sure there are no pipes or duct work in that part of the wall chosen for the thermostat location.
7. Never locate it in a room that is warmer or cooler than the rest of the home, such as kitchen or hallway.
8. The living or dining room is normally a good location, provided there is no cooking range or refrigerator on opposite side of wall.

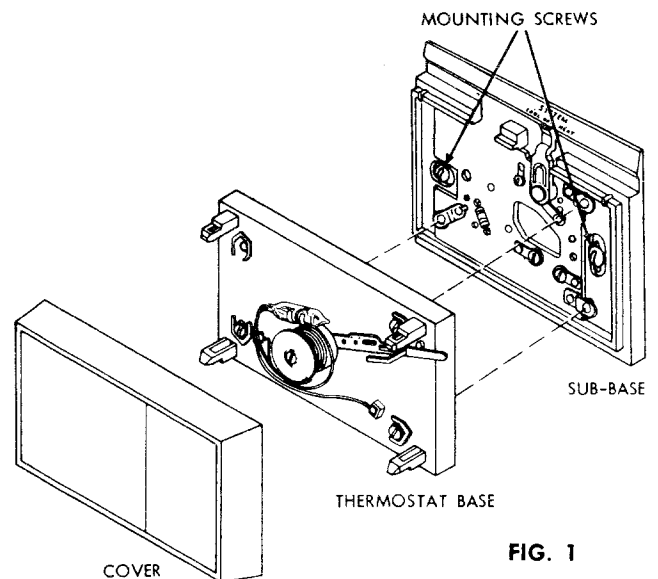
### INSTALLATION

#### Attaching Sub-Base to Wall

1. Route wires from cooling equipment to thermostat location and pull wires through hole in wall so that 6 in. of cable protrudes.
2. Pull wires through opening near center of sub-base and connect wires beneath proper terminals screws as shown under "wiring".
3. Push excess wire into wall or switch box and plug up hole to prevent drafts from affecting thermostat operation.
4. Fasten sub-base loosely to wall in position shown in Fig. 1 using two mounting screws provided. Level sub-base by placing spirit level on top of sub-base. Tighten mounting screws to secure sub-base in level position.

#### Mounting Thermostat to Sub-Base

1. Remove cover from thermostat by pulling it straight outward.
2. Attach thermostat base to sub-base, being sure that all screws are tightened snugly since they serve as electrical connections between thermostat and sub-base.
3. Snap on thermostat cover and set thermostat to desired setting.



### COOLING ANTICIPATION

This thermostat is equipped with a fixed non-removable heater. It is for use on current draws from 0 to 1.5 Amp.



WHITE-RODGERS DIVISION  
EMERSON ELECTRIC CO.  
9797 REAVIS ROAD  
ST. LOUIS, MISSOURI 63123

Printed in U. S. A.

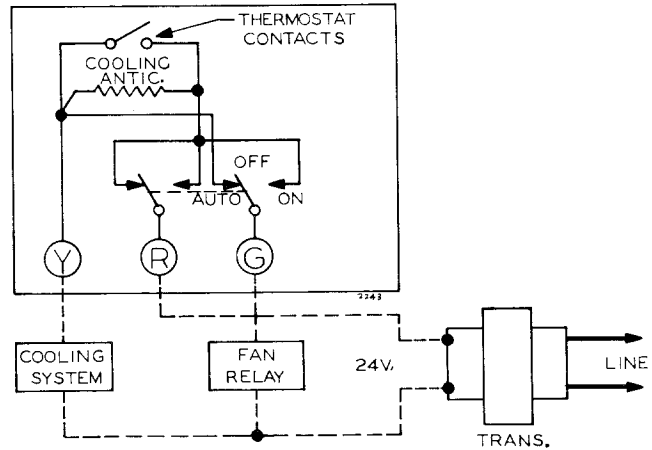
PART No. 37-2223

## OPERATION

| Position Of Switch | Operation  |
|--------------------|--|
| FAN AUTO           | Both blower and cooling system cycle from thermostat.            |
| SYSTEM OFF         | Neither blower nor cooling system will operate.                  |
| FAN ON             | Blower runs continuously. Cooling system cycles from thermostat. |

## WIRING

All wiring should be done according to local and national electrical codes and ordinances.



This wiring diagram shows connections for a typical system. Always refer to any specific wiring instructions provided by the equipment manufacturer.

## CALIBRATION ADJUSTMENT

These thermostats have been carefully adjusted at the factory and should not require re-calibration.

A few degrees difference between the indicator setting of the thermostat and actual room temperature is not considered important. If the disagreement is appreciable, however, first make sure that the thermostat is properly located and leveled. Then, if a calibration still seems necessary, proceed as follows:

These instructions apply for cooling models, with either sealed mercury or snap-action contacts.

1. Move temperature adjustment lever to a setting about 5° **below** room temperature.
2. Remove thermostat cover. Slip standard 7/32" wrench onto hex nut beneath bimetal, and, holding temperature adjustment lever stationary, turn hex nut **counterclockwise** until mercury shifts to **left** end of tube (or until movable contact closes against magnet on snap-action types.)
3. Remove wire from terminal on thermostat or wall mounting plate to take cooling anticipator out of circuit.
4. Replace thermostat cover. Wait 10 minutes for bimetal temperature to stabilize. Don't stand near thermostat during this period as your breath and body heat will affect temperature of bimetal.
5. Move temperature adjustment lever to correspond to actual room temperature. Then remove thermostat cover.
6. Slip standard 7/32" wrench onto hex nut and holding temperature adjustment lever stationary, turn hex nut **clockwise** until mercury just barely shifts to **right** end of tube (or until movable contact just moves off of magnet on snap-action types.)
7. Replace wire removed in step 3. Then replace thermostat cover and set thermostat to desired temperature.

